

NOTES ON THE ORCHID FLORA OF NEW GUINEA I.

WALTER KITTREDGE

The following nomenclatural and taxonomic notes are presented as a precursor to a checklist of the orchids of New Guinea currently under preparation. In this first part new generic records as well as new combinations are included. Subsequent parts will include typifications of various sectional names and descriptions of new species. The arrangement of genera follows the system presented by Schlechter in his "Die Orchidaceen von Deutsch-Neu-Guinea", published in Fedde, Repertorium specierum novarum regni vegetabilis Beihefte 1: 1-1042, 1911-1914.

Peristylus Turneri (Rogers) Kittredge, *comb. nov.*

Basionym: *Habenaria Turneri* Rogers, Roy. Soc. S. Austr. 49: 254, 1925.

Anoectochilus papuanus (Schltr.) Kittredge, *comb. nov.*

Basionym: *Eucosia papuana* Schltr., Fedde, Rep. Beih. 1:76, 1911.

This is one of several peloric species which Schlechter failed to place correctly. While the peloric lip, lacking a spur, somewhat obscures its generic affinities, this species can definitely be assigned to *Anoectochilus*. The habit of closely-spaced, ovate, short-petiolate leaves and few-flowered inflorescence of large flowers is entirely that of *Anoectochilus*, as is the column with its large bifid rostellum placed well behind the two lateral stigmas, and the long Y-shaped pollinarium with a small viscidium. Previous records of *Anoectochilus* from New Guinea have been identified as species of *Macodes*.

PNG — Madang Prov., Kani Mts., 1000 m., *Schlechter* 17361 (AMES!). Morobe Prov., Menyamya Subprov., Piwi'anga, 2000 m., *Streiman & Kairo* NGF 35902 (AMES!).

Erythrodes bicalcaratus (Rogers & White) Kittredge, *comb. nov.*
Basionym: *Physurus bicalcaratus* Rogers & White, Trans. Roy.
Soc. S. Austr. 44:110, 1920.

Malaxis cirrhiflora Kittredge, *nom. nov.*
Basionym: *Microstylis stenophylla* Schltr., Fedde, Rep. Beih.
1:119, 1911, not *Malaxis stenophylla* Holttum.

Malaxis cyanobrachis (Schltr.) Kittredge, *comb. nov.*
Basionym: *Microstylis cyanobrachis* Schltr., Fedde, Rep. 17:371,
1921.

Malaxis dolichostachya (Schltr.) Kittredge, *comb. nov.*
Basionym: *Microstylis dolichostachya* Schltr., Bot. Jahrb. 58:59,
1922.

Malaxis euantha (Schltr.) Kittredge, *comb. nov.*
Basionym: *Microstylis euantha* Schltr., Fedde, Rep. 16:43, 1919.

Malaxis foliosa Kittredge, *nom. nov.*
Basionym: *Microstylis graciliscapa* Schltr., Fedde, Rep. 16:107,
1919, not *Malaxis graciliscapa* Ames & Schweinfurth.

Malaxis gibbosa (J. J. Sm.) Kittredge, *comb. nov.*
Basionym: *Microstylis gibbosa* J. J. Sm., Bull. Dept. Ag. Ind.
Ned. 19:28, 1908.

Malaxis integrilabia (Schltr.) Kittredge, *comb. nov.*
Basionym: *Microstylis integrilabia* Schltr., Fedde, Rep. 16:108,
1919.

Malaxis Kempfii (Schltr.) Kittredge, *comb. nov.*
Basionym: *Microstylis Kempfii* Schltr., Fedde, Rep. 16:108,
1919.

Malaxis Keysseri (Mansfeld) Kittredge, *comb. nov.*
Basionym: *Microstylis Keysseri* Mansfeld, Bot. Jahrb. 62:463,
1929.

Malaxis Ledermannii (Schltr.) Kittredge, *comb. nov.*

Basionym: *Microstylis Ledermannii* Schltr., Bot. Jahrb. 58:60, 1922.

Malaxis pubicallosa (Schltr.) Kittredge, *comb. nov.*

Basionym: *Microstylis pubicallosa* Schltr., Fedde, Rep. 17:372, 1921.

Malaxis Stolleana (Schltr.) Kittredge, *comb. nov.*

Basionym: *Microstylis Stolleana* Schltr., Bot. Jahrb. 58:62, 1922.

Malaxis vinosa (Schltr.) Kittredge, *comb. nov.*

Basionym: *Microstylis vinosa* Schltr., Bot. Jahrb. 58:62, 1922.

Malaxis Wernerii (Schltr.) Kittredge, *comb. nov.*

Basionym: *Microstylis Wernerii* Schltr., Fedde, Rep. 17:373, 1921.

Gynoglottis palaelabellatum (Gilli) Garay & Kittredge, *comb. nov.*

Basionym: *Coelogyne palaelabellatum* Gilli, Ann. Nat. Mus. Wien 84B:22, 1983.

The genus *Gynoglottis* J. J. Sm. was established for a Sumatran species originally described by Reichenbach as a *Coelogyne*. The unique habit of Gilli's plant and the unusual long claw of the lip identify it as being congeneric with *G. cymbidioides* (Reich.f.) J. J. Sm. of which I have examined the type. This new record for New Guinea confirms a wider range for the genus first indicated by the doubtful material from the Moluccas.

Dilochia celebica (Schltr.) Schltr., Fedde, Rep. 21:143, 1925.

This new record extends the range of the genus eastwards to include New Guinea. The specimen was originally distributed as a *Dendrobium*.

IJ-Vogelkop Peninsula, Isjon River valley, from Son to Aifatfe-kaan, 650 m., Royen & Sleumer 7842a (AMES!, L).

Cadetia ledifolia (J. J. Sm.) Kittredge, *comb. nov.*

Basionym: *Dendrobium ledifolium* J. J. Sm., Nova Guinea 18:37, 1934.

Diplocaulobium Ridleyanum (Schltr.) Kittredge, *comb. nov.*

Basionym: *Dendrobium Ridleyanum* Schltr., Schum. & Laut. Nachtr. 160, 1905.

Synonyms: *Dendrobium reptans* Ridley, Journ. Bot. 24:323, 1886, not Swartz 1805, or Fr. & Sav. 1878.

Dendrobium humifusum Krzl., Pflanzenr. Heft 45:280, 1910.

Diplocaulobium gracilicolle (Schltr.) Kittredge, *comb. nov.*

Basionym: *Dendrobium gracilicolle* Schltr., Fedde, Rep. 16:112, 1919.

Trichotosia brachybotrya (Schltr.) Kittredge, *comb. nov.*

Basionym: *Eria brachybotrya* Schltr., Fedde, Rep. 16:115, 1919.

Trichotosia Gjellerupii Kittredge, *nom. nov.*

Basionym: *Eria integra* J. J. Sm., Bull. Jard. Bot. Buit. ser. 2, 3:14, 1912.

Synonym: *Trichotosia integra* (J. J. Sm.) Hunt, Kew Bull. 26:180, 1971, not Ridley 1917.

Trichotosia hapalostachya (Schltr.) Kittredge, *comb. nov.*

Basionym: *Eria hapalostachya* Schltr., Fedde, Rep. 16:218, 1919.

Agrostophyllum neoguinense Kittredge, *nom. nov.*

Basionym: *Chitonochilus papuanum* Schltr., Schum. & Laut. Nachtr. 134, 1905, not *Agrostophyllum papuanum* Schltr.

This species belongs in Schlechter's section *Dolichodesme*, and is most closely related to *A. paniculatum* J. J. Sm. As in *A. stenophyllum* Schltr., another peloric species of the same section, the lip callus is strongly reduced. The flat stems with distichous leaves, ligulate dark-margined leaf sheaths and wiry bracts at the base of the inflorescence are all characteristic of *Agrostophyllum*, while the cluster of elongated racemes with small closely-

sheathing, tubular bracts is identical in structure with the inflorescence of *A. paniculatum*. Schlechter's drawing of the ventral side of the column is misleading, because the lateral view shows the column to be bowed out in front as is the case in most species of *Agrostophyllum*. The anther contains eight pollinia, not four, as noted by Schlechter, leaving no characters by which to separate *Chitonochilus* from *Agrostophyllum*.

PNG, East Sepik Prov., Torricelli Mts. near Apur, 800 m., Schlechter 14420 (AMES!, Isotype).

Bulbophyllum crenilabium Kittredge, *nom. nov.*

Basionym: *Bulbophyllum pictum* Schltr., Fedde, Rep. Beih. 1:758, 1913, not Par. & Rchb. f. 1874

Bulbophyllum densibulbum Kittredge, *nom. nov.*

Basionym: *Bulbophyllum cylindrocarpum* Schltr., Fedde, Rep. 16:122, 1919, not Frappier ex Cordem. 1895.

Bulbophyllum gracilicaule Kittredge, *nom. nov.*

Basionym: *Bulbophyllum erectum* Rolfe, Trans. Linn. Soc. Bot. 9:186, 1916, not Thou. 1822.

Bulbophyllum kenejiense Kittredge, *nom. nov.*

Basionym: *Bulbophyllum hydrophilum* Schltr., Fedde, Rep. Beih. 1:843, 1913, not J. J. Smith 1905.

Bulbophyllum leptophyllum Kittredge, *nom. nov.*

Basionym: *Bulbophyllum lonchophyllum* Schltr., Fedde, Rep. 16:123, 1919, not Schltr. 1913.

Bulbophyllum ligulatum Kittredge, *nom. nov.*

Basionym: *Bulbophyllum eublepharum* Schltr., Fedde, Rep. 16:122, 1919, not *Bulbophyllum eublepharon* Rchb. f. 1862.

Bulbophyllum microlabium Kittredge, *nom. nov.*

Basionym: *Bulbophyllum parvilabium* Schltr., Fedde, Rep. 16:126, 1919, not Schltr. 1911.

Bulbophyllum minutibulbum Kittredge, *nom. nov.*

Basionym: *Bulbophyllum serpens* Schltr., Fedde, Rep. Beih. 1:804, 1913, not Lindley 1830.

Bulbophyllum obtusilabium Kittredge, *nom. nov.*

Basionym: *Bulbophyllum rhizomatosum* Schltr., Bot. Jahrb. 58:131, 1923, not Ames & Schweinf. 1920.

Bulbophyllum planifolium Kittredge, *nom. nov.*

Basionym: *Bulbophyllum breviscapum* J. J. Sm., Bull. Dept. Ag. Ind. Ned. 39:2, 1911, not (Rolfe) Ridley 1907.

Bulbophyllum rubromaculatum Kittredge, *nom. nov.*

Basionym: *Bulbophyllum nigrescens* Schltr., Fedde, Rep. Beih. 1:839, 1913, not Rolfe 1910.

Bulbophyllum sepikense Kittredge, *nom. nov.*

Basionym: *Bulbophyllum cuspidipetalum* Schltr., Bot. Jahrb. 58:132, 1923, not J. J. Sm. 1908.

Bulbophyllum singuliflorum Kittredge, *nom. nov.*

Basionym: *Bulbophyllum nemorosum* Schltr., Fedde, Rep. Beih. 1:884, 1913, not Cogn. 1902.

Bulbophyllum tristelidium Kittredge, *nom. nov.*

Basionym: *Bulbophyllum tridentatum* Rolfe, Kew Bull. p. 128, 1907, not Krzl. 1901.

Monomeria digitata (J. J. Sm.) Kittredge, *comb. nov.*

Basionym: *Bulbophyllum digitatum* J. J. Sm., Bull. Jard. Bot. Buit, ser. 2, 2:18, 1911.

The transfer of this species to *Monomeria* makes J. J. Smith's monotypic section *Gongorodes* a synonym of the genus, which is recorded here from New Guinea for the first time.

Octarrhena bilabrata (Royen) Kittredge, *comb. nov.*

Basionym: *Kerigomnia bilabrata* Royen, Contr. Herb. Austr. 12:2, 1976.

An examination of mature buds from the Ames isotype reveals that there are eight unequal pollinia in the anther, not two as reported by Royen, confirming his original placement of this species in the Thelasiinae. There are five species in *Octarrhena* which share with *O. bilabrata* the eight unequal pollinia and the unusual protruding column, but which differ in habit, having long multiflowered inflorescences.

PNG, Eastern Highlands Prov., Goroka Subprov., near Kerigomna camp, 3000 m., *Hoogland & Pullen* 5525 (AMES!, L! Isotypes).

The following key is offered to differentiate the species related to *Octarrhena bilabrata*:

1. Inflorescences short, 4–8 mm long, 1–3-flowered ***O. bilabrata***
- 1a. Inflorescences longer, 2–9 cm in length, many-flowered . . . 2
2. Lip adnate to column pouch in lower half . . ***O. calceiformis***
- 2a. Lip free from column 3
3. Lip linear-ligulate ***O. cucullifera***
- 3a. Lip broader, ovate, oblong or triangular 4
4. Inflorescence 1, subterminal, peduncle long, ovary smooth to slightly rugulose ***O. obovata***
- 4a. Inflorescence(s) 1–many, axillary from any part of stem, peduncle short, ovary warty 5
5. Leaves 8–15 mm long, petals obtuse to truncate . . ***O. gracilis***
- 5a. Leaves 17–25 mm long, petals acute ***O. cupulilabra***

Octarrhena teretifolia (Gilli) Kittredge, *comb. nov.*

Basionym: *Dendrochilum teretifolium* Gilli, Ann. Nat. Mus. Wien 84B:31, 1983.

This species is closely allied to *O. arfakensis* J. J. Sm. and *O. cylindrica* J. J. Sm. from which it differs in having orbicular petals and an invagination at the apex of the lip calli.

PNG, Western Highlands Prov., Laiagam, 2850 m., *Gilli* 461 (W! Holotype).

Thelasis abbreviata (Schltr.) Kittredge, *comb. nov.*

Basionym: *Oxyanthera abbreviata* Schltr., Fedde, Rep. Beih. 1:906, 1913.

Thelasis papuana (Schltr.) Kittredge, *comb. nov.*

Basionym: *Oxyanthera papuana* Schltr., Schum. & Laut. Nachtr. p. 126, 1905.

In describing the peloric form of *Thelasis carinata* Bl. in Nova Guinea 14:492, 1929, J. J. Smith stated that *Oxyanthera papuana* should be regarded as a synonym of *T. carinata*. An examination of Schlechter's collections reveals two prominent differences between these species which merit their separation. The first, mentioned by Schlechter, is that the flowers of *T. papuana* are nearly twice as large as those of *T. carinata*. The second is that *T. papuana* has a pair of stelidia at the apex of the column which are absent in *T. carinata*.

PNG: Bismarck Mts., 350 m., *Schlechter* 18658 (AMES!).

Phreatia clivicola Kittredge, *nom. nov.*

Basionym: *Phreatia collina* Schltr., Fedde, Rep. Beih. 1:9191, 1913, not J. J. Sm. 1911.